ABSTRACT OF THE DISCLOSURE

An exhaust gas purifying apparatus of an internal combustion engine is provided which includes: exhaust gas purifying means, provided in an exhaust passage of the engine, for adsorbing NO_x in an exhaust gas when the air-fuel ratio of the exhaust gas is lean. The exhaust gas apparatus releases or reduces the adsorbed NO_x when the oxygen concentration of the exhaust gas is reduced. A light-off catalyst is provided upstream of the exhaust gas purifying apparatus in the exhaust passage, which has a lower O₂ storage capability than the exhaust gas purifying apparatus. There is a control device for controlling the air-fuel ratio of the exhaust gas so that an atmosphere having a reduced oxygen concentration is produced around the exhaust gas purifying apparatus when the NO_x conversion efficiency of the exhaust gas purifying apparatus is decreased.